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# Thumb Spica

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## Disclaimer

**“The views expressed are those of the presenter(s) and do not reflect the official views or policy of the Department of Defense or its Components”**



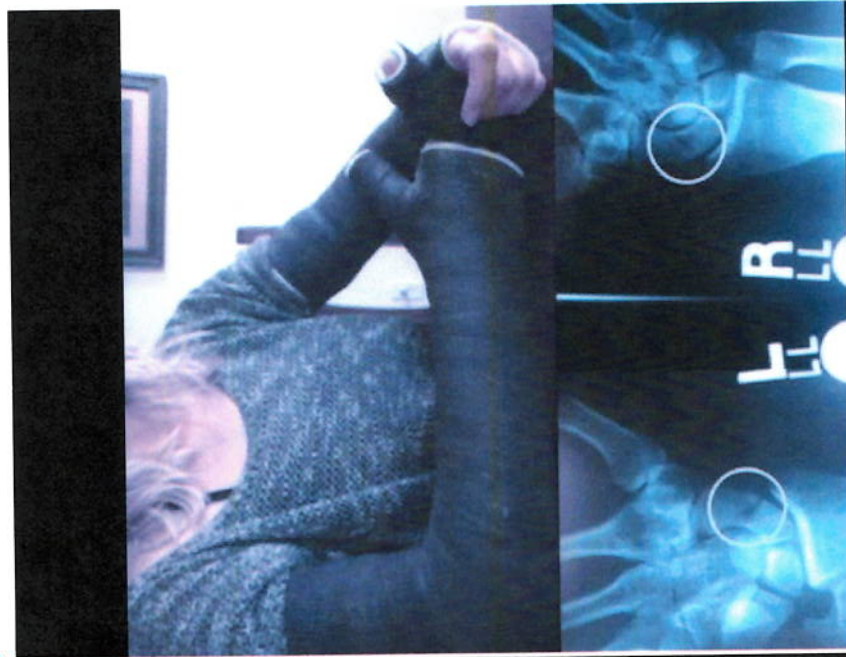
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# Overview

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- **Indications**
- **Cast Vs Splint**
- **Materials Needed**
- **General Principles**
- **Splint**
- **Cast**
- **Self Evaluation**
- **Points to Discuss with Patient**



## Indications

- Injuries to: (ex)
  - Scaphoid
  - Trapezium
  - First Metacarpal, non displaced, non angulated
  - Stable Thumb Fractures
- Can also be used for soft tissue rest
  - De Quervain Tenosynovitis

# Cast Vs Splint

## Casting

- Definitive Management
- Does not allow for continued swelling
- Better control of ROM

## Splinting

- Acute Management
- Allows for continued swelling
- ROM limited by application and compliance



# Materials Needed

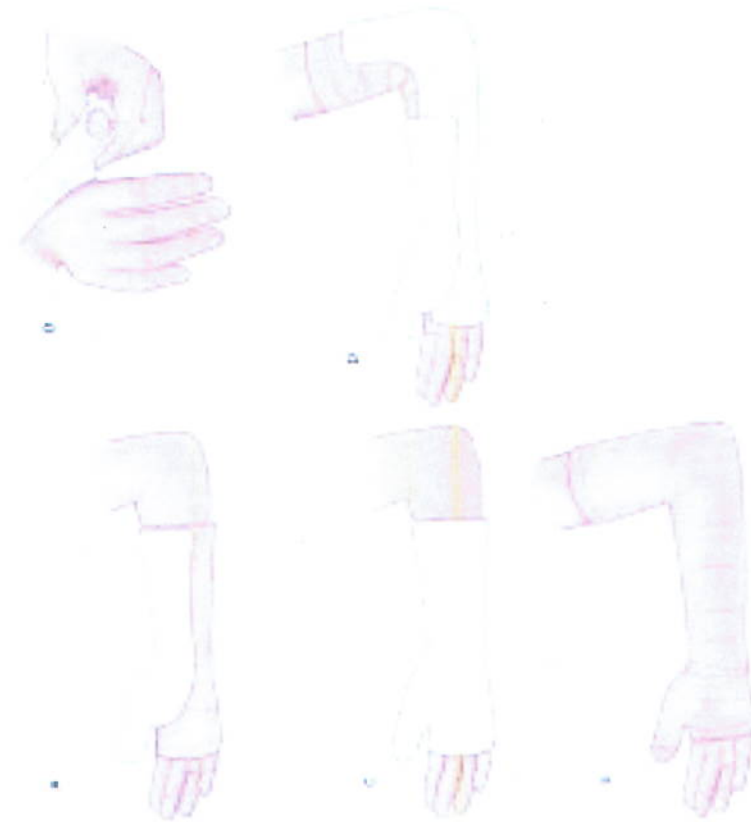
- Stockinette
- Trauma Shears
- ACE Wrap
- Padding (Webril)
- Water Receptacle
- Splinting Material
  - Plaster of Paris, Pre-fabricated plaster or fiberglass (Orthoglass)
- Casting Material
  - Fiberglass



# General Principles

- Measure out dry material at extremity being treated
  - Plaster shrinks slightly when wet; If too long can fold ends back
  - Can be measured on contralateral extremity
- Apply 2-3 layers of web, avoid wrinkles, place extra padding on bony prominences and between digits if needed
- Use approximately 10-12 layers of splinting material (dependent on size of individual)
- Mold with palms of hand vs fingers
- After complete check for function, arterial pulse, capillary refill, temperature of skin, and sensation
- Plain films to evaluate injury and splint/cast





## Splinting Order

- Apply stockinette and/or webril first
- Apply wet/prepared splinting material
- Cover with webril
- Secure with elastic (ACE) band
- Mold splinting material as needed



S A U S H E C



## Casting Order

- Apply stockinette first, then webril
- Apply wet/prepared initial casting material
- Fold over excessive stockinette
- Apply second layer of wet/prepared casting material
- Mold casting material as needed



## Self Evaluation

- Is injured extremity in desired position?
- For thumb spica its forearm in neutral position, wrist at 25 degrees and thumb in “wineglass/can holding” position
- Does injured extremity maintain good color, temp, and cap refill
- Was a long arm vs short arm thumb spica used for non displaced fractures of middle or proximal one third of scaphoid for initial management
- Was thermal injuries avoided by ensuring water was not hot and cast was not too thick



# Patient Education

- Elevate injured extremity at home
- Prop on pillow if needed
- Continue moving other fingers, elbow, and shoulder periodically throughout the day
- If cast feels tight despite elevation seek medical assistance
- Do not scratch under cast; do not get cast wet
- Get immediate assistance if:
  - Numbness (pins and needles) of fingers
  - Excessive swelling of fingers
  - Blueness or whiteness of fingers
  - Severe pain



S A M S H S O



## Conclusion

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- **Indications**
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- **Self Evaluation**
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